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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Chen et al.

Application No. 10/016,918

Filed: December 14, 2001

Confirmation No. 3901

For: QUALITY IMPROVEMENT
TECHNIQUES IN AN AUDIO ENCODER

Examiner: Myriam Pierre

Art Unit: 2626

Attorney Reference No. 3382-61344-01

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Attorney or Agent
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37 C.F.R. § 1.97(c)

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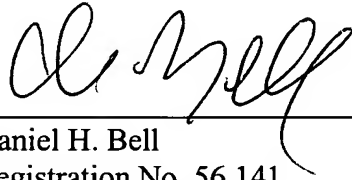
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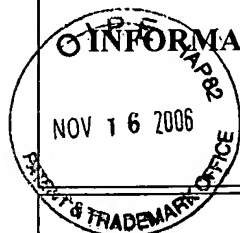
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Respectfully submitted,

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First Named Inventor	Chen
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U.S. PATENT DOCUMENTS

Copies of U.S. Patent documents do not need to be provided, unless requested by the Patent and Trademark Office. For patents, provide the patent number and the issue date. For published U.S. applications, provide the publication number and the publication date. For unpublished pending patent applications, provide the application number and the filing date.

Examiner's Initials*	Cite No. (optional)	Number	Publication Date	Name of Applicant or Patentee
		5,524,054	06-1996	Spille
		5,629,780	05-1997	Watson
		5,661,823	08-1997	Yamauchi et al.
		5,682,152	10-1997	Wang et al.
		5,684,920	11-1997	Iwakami et al.
		5,701,346	12-1997	Herre et al.
		5,835,030	11-1998	Tsutsui et al.
		6,041,295	03-2000	Hinderks
		6,064,954	05-2000	Cohen et al.
		6,249,614	06-2001	Kolesnik et al.
		6,370,502	04-2002	Wu et al.
		6,445,739	09-2002	Shen et al.
		6,658,162	12-2003	Zeng et al.
		6,738,074	05-2004	Rao et al.

FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
		Europe	EP 0597649	05-1994	Suzuki

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FOREIGN PATENT DOCUMENTS

Examiner's Initials*	Cite No. (optional)	Country	Number	Publication Date	Name of Applicant or Patentee
		Europe	EP 0669724	08-1995	Akagiri
		WIPO	WO 99/43110	08-1999	Absar et al.

Examiner's Initials*	Cite No. (optional)	OTHER DOCUMENTS
		Bier, "Digital Audio Compression: Why, What, and How," © 2000-2002 Berkeley Design Technology, Inc., 12/2/2002, 15 pages.
		Bosi et al., "ISO/IEC MPEG-2 Advanced Audio Coding," Journal of the Audio Engineering Society, Audio Engineering Society, Vol. 45, No. 10, pages 789-812 (1997).
		Brandenburg, "MP3 and AAC Explained," AES 17th International Conference on High Quality Audio Coding, 1999, 12 pages.
		Davis, "The AC-3 Multichannel Coder," Dolby Laboratories, 9 pp. (Downloaded from the World Wide Web on August 15, 2002).
		Edler et al., "Perceptual Audio Coding Using a Time-Varying Linear Pre- and Post-Filter," in AES 109th Convention, Los Angeles, California, 12 pp. (September 2000).
		Gibson et al., Digital Compression for Multimedia, Title Page, Contents, "Chapter 8: Frequency Domain Speech and Audio Coding Standards," Morgan Kaufman Publishers, Inc., pp. 263-290 (1998).
		Gillespie et al., "Speech dereverberation via maximum-kurtosis subband adaptive filtering," Proc. IEEE ICASSP, 2001, pp. 3701-3704.
		Herre, "From Joint Stereo to Spatial Audio Coding - Recent Progress and Standardization," Proc. Of the 7th Int. Conference on Digital Audio Effects (DAFx'04), 2004, pages 157-162.
		Herre et al., "Intensity Stereo Coding," presented at AES 96th Convention, 1994, 11 pages.
		ISO/IEC 13818-7, Information technology - Generic coding of moving pictures and associated audio information - Part 7: Advanced Audio Coding (AAC), 150 pp. (1997).
		Kuo et al., "A Study of Why Cross Channel Prediction is Not Applicable to Perceptual Audio Coding," IEEE Signal Processing Letters, Vol. 8, No. 9, 3 pp. (September 2001).
		Meares, D.J., "Matrixed Surround Sound in an MPEG Digital World," Journal of the Audio Engineering Society, Vol. 46, No. 4, 13 pp. (April 1998).

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		"MPEG2 Audio for DVD: the Compromise Choice," 5 pp. (October 1996).
		Püschel et al., "The Algebraic Approach to the Discrete Cosine and Sine Transforms and their Fast Algorithms," SIAM Journal of Computing 2003, Vol. 32, No. 5, pp. 1280-1316.
		"Radio Engineering," authored by KPR i-Services, Inc., printed from internet on 12/13/2005, 3 pages.
		Schroeder, "'Colorless' Artificial Reverberation," presented at Audio Engineering Society 12th Annual Meeting, 1960, 18 pages.
		Schroeder, "Natural Sounding Artificial Reverberation," presented at the Audio Engineering Society 13th Annual Meeting, 1961, 18 pages.
		Search Report for European Patent Application No. 03 020 110.7.
		Search Report for European Patent Application No. 03 020 111.5.
		Search Report for PCT/US2004/024935.
		"Smart Project - Algebraic Theory of Signal Processing," http://www.ece.cmu.edu/~smart/papers/dttaglo.html , printed from internet on 6/30/2006, 2 pages.
		Smith, "Physical Audio Signal Processing: for Virtual Musical Instruments and Digital Audio Effects," (Global Contents - 13 pages, Allpass Filters - 2 pages, Schroeder Allpass Sections - 2 pages, and A Schroeder Reverberator called JCRev - 2 pages) of online book at http://ccrma.stanford.edu/~jos/pasp/ , Center for Computer Research in Music and Acoustics (CCRMA), Stanford University, printed from internet on 12/20/2005, 19 pages.
		Stuart et al., "Lossless Compression for DVD-Audio," in AES 9th Regional Convention Tokyo, 4 pp. (1999).
		Vaidyanathan, Multirate Systems and Filter Banks, Prentice Hall Signal Processing Series, Cover page, pp. 745-751 (1992).
		Van Assche et al., "Lossless Compression of Pre-Press Image Using a Novel Color Decorrelation Technique," Proc. SPIE, Very High Resolution and Quality III. Vol. 3308, 8 pp. (1998).
		Wang et al., "A Multichannel Audio Coding Algorithm for Inter-Channel Redundancy Removal," in AES 110th Convention, Amsterdam, the Netherlands, 6pp. (May 2001).

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		Wang et al., "EE225a Lecture 13: Karhunen Loève Transform and Discrete Cosine Transform," Department of EECS, University of California at Berkley, 10 pp. (March 2002).
		Yang et al., "Adaptive Karhunen-Loeve Transform for Enhanced Multichannel Audio Coding," Proc. SPIE Vol. 4475, 13 pp., Mathematics of Data/Image Coding, Compression, and Encryption IV San Diego, CA. (July 29 - August 3, 2001).
		Yang et al., "An Inter-Channel Redundancy Removal Approach for High-Quality Multichannel Audio Compression," in AES 109th Convention, Los Angeles, California, 8 pp. (September 2000).

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